

**ABSTRACT**

5      Catheters and methods for epicardial ablation are provided. A suitable  
catheter comprises an elongated catheter body and an ultrasound transducer  
mounted at or near the distal end of the catheter body. The transducer has a  
front surface and an opposing back surface, wherein the transducer is positioned  
to transmit ultrasound energy toward tissue facing the front surface but not  
10      toward tissue facing the back surface. A sensor is mounted within the catheter  
near the ultrasound transducer for sensing a location and an orientation of the  
ultrasound transducer within a patient. A suitable method involves introducing  
the distal end of the catheter introducing into the pericardium of a patient. The  
15      transducer's front surface is positioned so that it generally faces tissue to be  
ablated, and the tissue is ablated with ultrasound energy generated by the  
transducer.